

In the claims:

4. (Amended) A hybrid oligonucleotide consisting of one or more deoxyribonucleotide POPS blocks,

E' the POPS blocks comprising alternating phosphorothioate and phosphodiester internucleoside linkages, and one or more regions of 2'-O-substituted ribonucleotides,

wherein the ribonucleotides are linked by internucleoside linkages selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate, and phosphoramidate internucleoside linkages.

REMARKS

At the outset, Applicants wish to thank Examiner Lacourciere for the courtesy of a telephonic interview held February 21, 2002, during which the outstanding rejections of claims 4-6 under 35 U.S.C. §112, second paragraph, were discussed. The amendments discussed during the interview are indicated below.

Claims 4-6 are currently pending. Claim 4 has been amended and contains no new matter. A clean version of the entire set of pending claims, pursuant to 37 C.F.R. 1.121 (c), is submitted herewith as Appendix A. A marked-up copy of claim 4, pursuant to 37 C.F.R. 121 (c)(3), is submitted herewith as Appendix B.

Applicants respectfully request reconsideration of pending claims 4-6.

Rejections under 35 U.S.C. §112, Second Paragraph

Claims 4-6 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the application regards as the invention.

More specifically, claims 4-6 are rejected as indefinite due to the recitation "one or more POPS blocks."

As suggested during the interview, claim 4 has been amended to recite a hybrid oligonucleotide consisting of one or more deoxynucleotide POPS blocks, the POPS blocks comprising alternating phosphodiester and phosphorothioate internucleoside linkages. As Applicants and the Examiner noted during the interview, the term "alternating" embraces a variety of configurations of both regularly and irregularly alternating phosphodiester and phosphorothioate internucleoside linkages as described at page 3, lines 10 - 25 of the specification.

Claims 4-6 are further rejected under 35 U.S.C. §112, second paragraph, as being indefinite for the recitation "flanked."

Applicants respectfully submit that the above-described amendment renders this rejection moot, as discussed in the telephonic interview of February 21, 2002.

Claims 4-6 are further rejected under 35 U.S.C. §112, second paragraph, because the term "the internucleoside linkages" lacks antecedent basis.

As described above, claim 4 has been amended to recite that the 2'-O-substituted ribnucleotides of the hybrid nucleotide are linked by internucleoside linkages selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate, and phosphoramidate internucleoside linkages. Accordingly, in view of this amendment, Applicants respectfully submit that this rejection should be reconsidered and withdrawn.

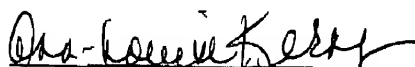
Claims 4-6 are further rejected under 35 U.S.C. §112, second paragraph, because it is unclear if the "POPS block" region can include phosphodiester, phosphotriester, phosphorothioate, and phosphoramidate internucleoside linkages.

Claim 4, amended as described above, recites a hybrid oligonucleotide wherein the 2'-O-ribonucleoside monomers in the ribonucleotide segments of the oligonucleotide are linked by internucleoside linkages selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate, and phosphoramidate internucleoside linkages. Thus, Applicants respectfully submit that this rejection should be reconsidered and withdrawn.

In view of the foregoing amendments and remarks, it is respectfully submitted that the rejections of claims 4-6 under 35 U.S.C. §112, second paragraph, have been overcome. Thus, Applicants respectfully submit that this application is now in condition for allowance. If there are any questions, the Examiner is invited to call the undersigned at the number listed below.

This Amendment is being filed with a petition for a two-month extension of time, up to and including February 28, 2002. Applicants believe no other fees are due at this time; however, please charge any underpayments or credit any overpayments to our Deposit Account No. 08-0219.

Respectfully submitted,



Ann-Louise Kerner, Ph.D.
Attorney for Applicant
Reg. No. 33,523

February 28, 2002
HALE AND DORR LLP
60 State Street
Boston, MA 02109
Tel: (617) 526-6000
Fax: (617) 526-5000

APPENDIX A

4. A hybrid oligonucleotide consisting of one or more deoxyribonucleotide POPS blocks,
the POPS blocks comprising alternating phosphodiester and phosphorothioate internucleoside linkages, and one or more regions of 2'-O-substituted ribonucleotides,
wherein the ribonucleotides are linked by internucleotide linkages selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate, and phosphoramidate internucleoside linkages.
5. The oligonucleotide according to claim 4, having from 12 to 50 nucleotides.
6. The oligonucleotide according to claim 5, having from 17 to 35 nucleotides.

APPENDIX B

4. A hybrid oligonucleotide consisting of one or more deoxyribonucleotide POPS blocks, the POPS blocks comprising alternating phosphorothioate and phosphodiester internucleoside linkages, and one or more regions of 2'-O-substituted ribonucleotides, [wherein each of said POPS blocks is flanked by a region of 2'-O-substituted ribonucleosides, and]

wherein the ribonucleotides are linked by internucleoside linkages [are] selected from the group consisting of phosphodiester, phosphotriester, phosphorothioate, and phosphoramidate internucleoside linkages.